

CLAIMS

What is claimed is:

1. A memory module, comprising:
a substrate;
at least two sites on said substrate, each of the at least two sites having mounted thereon a memory chip with substantially the same memory capacity, said memory chips providing a memory capacity for said memory module; and
at least one other site on said substrate for mounting at least one additional memory chip thereon, the at least one additional memory chip having a functional memory less than the memory capacity of said memory module.
2. A memory module, comprising:
a substrate;
at least two sites on said substrate, each of the at least two sites having mounted thereon a memory chip with substantially the same memory capacity, said memory chips providing a memory capacity for said module; and
at least one other site on said substrate configured to accept either of at least two other memory chips of different size.
3. A memory module, comprising:
a substrate having a plurality of memory chips mounted thereon; and
a programmable device adapted to reroute input and output paths to and from said plurality of memory chips to bypass non-functional memory in at least one of said plurality of memory chips, extending to one or more additional locations on said substrate and configured to incorporate functional memory of one or more additional chips disposed at said one or more additional locations on said substrate into said rerouted input and output paths.

4. The module of claim 3, further comprising at least one additional memory chip mounted on at least one of said additional locations, operably coupled to said programmable device and providing functional memory in an amount equivalent to or greater than the non-functional memory.

5. The module of claim 4, wherein said at least one additional memory chip contains at least some non-functional memory.

6. The module of claim 4, wherein said at least one additional memory chip comprises at least two memory chips having different memory capacity and being placed at different additional locations.

7. The module of claim 3, wherein said programmable device comprises a traffic-control EEPROM.

8. A memory module comprising:
a plurality of chips mounted to a substrate, said plurality of chips collectively exhibiting an amount of non-functional memory exceeding a memory capacity of any one chip of said plurality; and
at least one additional memory chip providing an amount of functional memory equal to or greater than said amount of non-functional memory

9. The module of claim 8, wherein said at least one additional memory chip comprises at least two memory chips having different amounts of functional memory.